

IN THE CLAIMS

Please replace claims 1, 16, 21, and 23-28 with the following claims:

1.(AMENDED) A method for producing an abrasion resistant coating composed of a ceramic/metal material system or a ceramic/ceramic material system, the method comprising the steps of:

β^2 blending micron-scale particles of a hard phase material with nano-scale particles of a binder phase material to form a uniform powder mixture;

aggregating the powder mixture to bond the nano-scale particles to the micron-scale particles thereby forming a feedstock powder comprised of aggregated particles; and

thermal spraying the feedstock powder of particle aggregates onto a substrate thereby forming the abrasion resistant coating thereon, the coating composed of the micron-scale particles of the hard phase material fused together with the binder phase material.

16.(AMENDED) A method of making a feedstock powder for use in producing thermal spray abrasion resistant coatings composed of a ceramic/metal material system or a

β^3 ceramic/ceramic material system, the method comprising the steps of:

blending micron-scale particles of a hard phase material with nano-scale particles of a binder phase material to form a uniform powder mixture; and

aggregating the powder mixture to bond the nano-scale particles to the micron-scale particles thereby forming particle aggregates.

B4 21.(AMENDED) The method according to claim 16, further comprising the step of agglomerating the powder mixture formed in the blending step prior performing the aggregating step.

23.(AMENDED) The method according to claim 16, wherein the hard phase material includes one of a ceramic or a ceramic/metal composite.

B5 24.(AMENDED) The method according to claim 16, wherein the binder phase material includes one of a metal, ceramic and ceramic/metal composite.

25.(AMENDED) The method according to claim 16, wherein the micron-scale particles of the hard phase material comprises between 50 and 90 volume percent of the blended powder mixture.

26.(AMENDED) The method according to claim 16, wherein the micron-scale particles of the hard phase material comprises 70 volume percent of the blended powder mixture.

27.(AMENDED) The method according to claim 16, wherein the aggregating step is performed by heat treating.

28.(AMENDED) The method according to claim 16, wherein the ceramic/metal material system is selected from the group consisting of WC/Co, Cr₃C₂/NiCr, TiC/Fe, metal boride/metal,

and metal nitride/metal and the ceramic/ceramic material system is selected from the group consisting of Al_2O_3 , YSZ, $\text{Al}_2\text{O}_3/\text{TiO}_2$, ZrO_2/MgO , and $\text{Cr}_2\text{O}_3/\text{SiO}_2$.